SITE Program Description

Introduction

The SITE Program is composed of a Demonstration Program, a Monitoring and Measurement Technology (MMT) Program, and information transfer. SITE offers a mechanism for conducting joint technology demonstration and evaluation projects at hazardous waste sites through the involvement of the private sector, EPA, and other federal and state agencies. It is comprised of the following key elements:

✓ **Demonstration Program**
Evaluates and verifies performance and reports cost of promising innovative technologies at selected hazardous waste sites to provide reliable performance, cost, and applicability information for site cleanup decision-making

✓ **Monitoring and Measurement Technologies Program**
Evaluates technologies that detect, monitor, and measure hazardous and toxic substances to provide more cost-effective and accurate methods for producing real-time data during site characterization and remediation

✓ **Information Transfer Activities**
Disseminates technical information, including engineering, performance, and cost data, to assist in removing barriers for use of innovative and alternative technologies

The Demonstration Program is the flagship of the SITE Program. Its objective is to conduct field demonstrations and high-quality performance verifications of viable remediation technologies at sites that pose high risks to human health and/or the environment, are common throughout a region or the nation, or where existing remediation methods are inadequate, unsafe, or too costly. The SITE Program solicits applications annually from those responsible for cleanup operations at hazardous waste sites. A panel of SITE Program scientists, engineers, and associated environmental experts reviews the applications to identify those technologies that best represent solutions for the most pressing environmental problems. The resulting data and reports are intended for use by decision-makers in selecting remediation options and for increasing credibility in innovative applications.

The program is participating with 145 remediation technology vendors. The SITE Program has successfully demonstrated 137 technologies, including 16 during FY 01. Recognizing the need for a shift from ex situ remediation, all of the Program's 12 ongoing demonstrations are in-situ technologies. SITE's Monitoring and Measuring Technologies (MMT) Program has completed 45 projects to date, with 2 more in the planning stages.

The foundation of the SITE Program is providing credible cost and performance data.

Program Principles

The SITE Program is defined by the following four operating principles: (1) program planning, (2) matching priority sites with innovative cleanup solutions, (3) technology field demonstrations, and (4) information dissemination.

Program Planning

SITE Program direction and strategies are evaluated each year based on input from the user community and other private- and public-sector stakeholders to ensure that the program continues to focus on validating the most sought-after remediation technologies. As part of the overall program planning process, the SITE Program has developed and is implementing a quality management plan based on American National Standard Institute, Specifications and Guidelines for Quality Assistance for Environmental Data Collection and Environmental Technology Programs (ANSI/ASQC E4). This plan will enable the program to focus more clearly on long-term quality assurance and planning issues that impact overall program performance.

Technology Field Demonstrations

SITE Program technology demonstrations are increasingly conducted in partnership with other EPA offices, other federal agencies, states, private industry, and universities. These partnerships reduce the overall costs of demonstrations to EPA, accelerate remediation of some of the most problematic sites at federal and state facilities, and significantly subsidize the technology vendors via site/logistical costs. One example of interagency partnerships is with DOD, Navy at Pearl Harbor. This group is currently working on a demonstration evaluating technologies to remediate DNAPL at Pearl Harbor, Hawaii.

Innovative remediation and monitoring/measurement technology demonstration projects are presented by developer state and by demonstration site state in Appendices A and B, respectively.

Information Dissemination

Electronic documents are accessible through the Internet at the SITE Program web page (*http://www.epa.gov/ORD/SITE*), Environmental Technologies Verification (ETV)web site *http://www.epa.gov/etv/),* and a site supported by the EPA Office of Solid Waste and Emergency Response Technology Innovation Office (TIO) (*http://clu-in.org*). Several technology databases and publications summarize information about innovative treatment technologies and associated vendors, and are useful tools in identifying potential technology demonstration candidates or serve as directories for technology vendors. Descriptions of selected databases and publication ordering information are provided in Appendix C.

The following mechanisms are used by the SITE Program to disseminate information and increase interaction with the user community:

- Program-specific brochures and exhibits
- Conferences, workshops, and technical working groups
- Publications and videotapes (accessible on the Internet: http://www.epa.gov/ ORD/SITE/document.html)
- Hard copies available from EPA's National Center for Environmental Publications, 513-569-8190 or 1-800-490-9192.
- Electronic media, including the Internet
- Technical assistance to regions, states, and remediation contractors
- Technology seminars